

AMENDMENTS TO THE CLAIMS

Please amend the Claims as follows. Insertions are shown underlined while deletions are ~~struck through~~.

1 (canceled)

2 (canceled)

3 (previously presented): A supporting device for non-averaged force in a pipeline comprising:

a frame, which is adapted to encircle a pipe body and to be fixed to a supporting portion, and

a fixing mechanism, which serves to fix the pipe body to the frame,

wherein the fixing mechanism comprises (i) edge portions formed on an inner surface of the frame for receiving an outer surface of the pipe body from one side in a radial direction of the pipe body by pinching the pipe body, and (ii) wedge bodies for blocking movements of the pipe body in a pipe axial direction with respect to the frame upon being pressed against an outer surface of the pipe body from the other side in the radial direction of the pipe body through pressing force acting from the frame towards the pipe body, and

wherein the wedge bodies are disposed at specified intervals in the pipe axial direction, while a posture of the wedge bodies is set in a condition such that directions of wedge actions of one pair of wedge bodies adjoining in the pipe axial direction are opposite with respect to each other in the pipe axial direction.

4 (canceled)

5 (currently amended): A supporting device for non-averaged force in a pipeline comprising:

a frame, which is adapted to encircle a pipe body and to be fixed to a supporting ~~portion~~plane, said frame comprising i) a mounting seat portion to be fixed to the supporting ~~portion~~plane, ii) a pipe supporting portion for encircling the pipe body rising vertically from the mounting seat portion, and iii) a rib attached to the mounting seat portion, extending in a pipe axial direction, and connected to the pipe supporting portion, wherein the mounting seat portion, the pipe supporting portion, and the rib are rigidly integrally formed, said pipe supporting portion

being two-split in a radial direction and the pair of separated pipe supporting portions being coupled together by a coupling means; and

a fixing mechanism, which serves to fix the pipe body to the frame,

wherein the fixing mechanism comprises male screw members for blocking movements of the pipe body in a pipe axial direction with respect to the frame by pressing an outer surface of the pipe body with their tip end portions in a condition in which they are screwed into female screw portions formed in the frame, and said male screw members are provided to be dispersed in a circumference direction.

6 (original): The supporting device for non-averaged force in a pipeline as claimed in Claim 5, wherein the tip end portions of the male screw members are indented.

7 (currently amended): A supporting device for non-averaged force in a pipeline comprising:

a frame adapted to encircle a pipe body and to be fixed to a supporting portion, said frame having an inner circumferential surface for encircling the pipe body, and

a fixing mechanism, which serves to fix a pipe body to the frame,

said fixing mechanism comprising (i) edge portions for receiving an outer surface of the pipe body, said edge portions formed on a first half portion of the inner circumferential surface of the frame in a circumference direction, and (ii) male screw members for blocking movements of the pipe body in a pipe axial direction with respect to the frame, said male screw members provided on a second half portion of the inner circumferential surface of the frame, wherein the first portion of the inner circumferential surface and the second portion of the inner circumferential surface face to each other, and said male screw members press against an outer surface of the pipe body at their tip end portions when the male screw members are screwed into female screw portions formed in the frame.

8 (original): The supporting device for non-averaged force in a pipeline as claimed in Claim 7, wherein the tip end portions of the male screw members are indented.

9 (previously presented): A supporting device for non-averaged force in a pipeline comprising:

a frame, which is adapted to encircle a pipe body and to be fixed to a supporting portion, and

a fixing mechanism, which serves to fix a pipe body to the frame,

said fixing mechanism comprising (i) movement blocking bodies for blocking movements of the pipe body in a pipe axial direction, said movement blocking bodies being arranged along an inner circumference of the frame and supported therein, each movement blocking body having a pair of edge portions at an interval in the pipe axial direction and a top surface with rounded edges, and (ii) pressing screw members for pressing the top surface of each movement blocking body through the frame, whereby the edge portions of each movement blocking body press against an outer surface of the pipe body.

10-14 (canceled)

15 (currently amended): A supporting device for non-averaged force in a pipeline comprising:

a frame, which is adapted to encircle a pipe body and to be fixed to a supporting portion, and

a fixing mechanism, which serves to fix a pipe body to the frame,

said fixing mechanism comprising (i) movement blocking bodies for blocking movements of the pipe body in a pipe axial direction,

each movement blocking body being having three or more edge portions at intervals in the pipe axial direction, or alternatively, one edge portion, and (ii) pressing screw members for pressing a top surface of each movement blocking body through the frame, whereby only the edge portion(s) are to be in contact with and pressed against an outer surface of the pipe body.

16 (currently amended): A supporting device for non-averaged force in a pipeline comprising:

a ring body, which encloses a pipe body,

a plurality of pressing portions, ~~which~~ for pressing the pipe body from outside in a radial direction while being dispersed in a peripheral direction of the ring body,

a frame, which is provided as a separate body than the ring body and is fixed to a fixing ~~portion~~plane, said frame comprising i) a mounting seat portion to be fixed to the fixing ~~portion~~plane, ii) a pipe supporting portion rising vertically from the mounting seat portion, and iii) a rib attached to the mounting seat portion, extending in a pipe axial direction, and connected

Appl. No. : 10/079,077
Filed : February 19, 2002

to the pipe supporting portion, wherein the mounting seat portion, the pipe supporting portion, and the rib are rigidly integrally formed,

said pipe supporting portion having a supporting portion for receiving and supporting the ring body.

17 (original): The supporting device for non-averaged force in a pipeline as claimed in Claim 16, wherein the supporting portion is arranged in that a concave portion for receiving and accumulating a portion of the ring body portion or a portion of the belt body is provided at the frame.

18 (original): The supporting device for non-averaged force in a pipeline as claimed in Claim 16, wherein the frame is arranged by mutually coupling a pair of separated frames made of an angle member disposed in a condition in which they are aligned in the pipe axial direction of the pipe body, and

that the supporting portion is arranged in that a first restricting portion for receiving and restricting the ring body in vertical directions, a second restricting portion for receiving and restricting the same from outside in lateral directions, and a third restricting portion for receiving and restricting the same in the axial core direction of the pipe body are provided at the respective separated frames.

19 (currently amended): A supporting device for non-averaged force in a pipeline comprising:

a belt body, ~~which~~ for encircling and fastening a pipe body, and

a frame, which is provided as a separate body than the belt body and which is fixed to a fixing ~~portion~~ plane, said frame comprising i) a mounting seat portion to be fixed to the fixing ~~portion~~ plane, ii) a pipe supporting portion rising vertically from the mounting seat portion, and iii) a rib attached to the mounting seat portion, extending in a pipe axial direction, and connected to the pipe supporting portion, wherein the mounting seat portion, the pipe supporting portion, and the rib are rigidly integrally formed,

said pipe supporting portion having a concave supporting portion for receiving and supporting the belt body therein.

20 (original): The supporting device for non-averaged force in a pipeline as claimed in Claim 19, wherein the supporting portion is arranged in that a concave portion for receiving and

Appl. No. : **10/079,077**
Filed : **February 19, 2002**

accumulating a portion of the ring body portion or a portion of the belt body is provided at the frame.

21 (previously presented): The supporting device for non-averaged force in a pipeline as claimed in Claim 16, wherein said ring body is two-split in a radial direction and the pair of separated ring bodies are coupled together by a coupling means.

22 (previously presented): The supporting device for non-averaged force in a pipeline as claimed in Claim 19, wherein said belt body is two-split in a radial direction and the pair of separated belt bodies are coupled together by a coupling means.